

In The Claims

Please amend the claims as follows.

1. (Currently Amended) A hands free system for operating a mobile terminal in a vehicle having a steering wheel, comprising:
a processing module coupled to an integrated hands free mobile system module, the integrated hands free mobile system module detachably coupled to a wireless mobile terminal such that the mobile terminal is user removable from the vehicle;
an audio input device mounted substantially in a center area of the steering wheel of the vehicle, the audio input device operatively connected to the processing module;
a switch located in a predetermined area of the steering wheel, the switch operatively connected to the processing unit; and
~~ana~~ stereo operatively connected to the processing module.
2. (Original) The hands free system according to claim 1, wherein the audio input device is a microphone.
3. (Original) The hands free system according to claim 1, wherein the stereo comprises at least an audio amplifier operatively connected to at least one speaker.
4. (Original) The hands free system according to claim 1, wherein the processing module is detachably coupled to the mobile terminal via a cable having a universal connector that interfaces to a plurality of different mobile terminals.

5. (Original) The hands free system according to claim 1, wherein the processing module is structured to give priority to a signal from the mobile terminal over any other signal in the stereo.
6. (Original) The hands free system according to claim 1, wherein the hands free system further comprises a display operatively connected to the processing module for displaying information relative to the connected mobile terminal.
7. (Original) The hands free system according to claim 6, wherein the displayed information is downloaded information that is used by the mobile terminal.
8. (Original) The hands free system according to claim 1, wherein the switch is a toggle-type switch, and wherein each toggle of the switch is an indication to proceed to the next stage in call handling by the mobile terminal.
9. (Original) The hands free system according to claim 1, wherein the processing module is structured for at least one of: to mute the audio input device, to connect the audio input device to a voice input processor of the mobile terminal when a call is connected, to connect an earpiece amplifier output of the mobile terminal to an amplifier input of the stereo when a call is connected, to connect a preamplifier output of the stereo to the audio input of the stereo when a call is not connected or being setup, to connect the preamplifier output of the hands free mobile system to the audio input of the when the call is being setup, to store telephone numbers and associate them with spoken tokens, and to prompt a user to provide phone numbers to dial.

10. (Original) The hands free system according to claim 1, wherein the processing module further comprises a voice recognition module for at least converting spoken numbers into digits, and spoken words into tokens associated with a memory location in a memory in the processing module.
11. (Original) The hands free system according to claim 1, wherein the hands free system further comprises a PC serial port connector for interfacing the processing module to a personal computer.
12. (Original) The hands free system according to claim 11, wherein the personal computer has a phone directory, wherein the processing module has a phone directory, and wherein the phone directory in the processing module is synchronizable with the phone directory in the personal computer via the PC serial port connector.
13. (Original) The hands free system according to claim 11, wherein the personal computer has a synchronization program, wherein the processing module has a synchronization program, and wherein the synchronization program in the processing module is updateable with the synchronization program in the personal computer via the PC serial port connector.
14. (Original) The hands free system according to claim 1, wherein the processing module is structured to send digits to be dialed to the mobile terminal via the cable.
15. (Previously Amended) A hands free system for operating a mobile terminal in a vehicle having a steering wheel, comprising:

a processing module coupled to an integrated hands free mobile system module, the integrated hands free mobile system module detachably coupled to a wireless mobile terminal such that the mobile terminal is user removable from the vehicle;

a microphone mounted substantially in a center area of the steering wheel of the vehicle, the microphone operatively connected to the processing module;

a switch located in a predetermined area of the steering wheel, the switch operatively connected to the processing unit;

a display operatively connected to the processing module for displaying information relative to the connected mobile terminal; and

a vehicle sound system operatively connected to the processing module.

16. (Original) The hands free system according to claim 15, wherein the processing module is detachably coupled to the mobile terminal via a cable having a universal connector that interfaces to a plurality of different mobile terminals.

17. (Original) The hands free system according to claim 15, wherein the processing module is structured to give priority to a signal from the mobile terminal over any other signal in vehicle sound system.

18. (Original) The hands free system according to claim 15, wherein the displayed information is downloaded information that is processed in the mobile terminal.

19. (Original) The hands free system according to claim 15, wherein the switch is a toggle-type switch, and wherein each toggle of the switch is an indication to proceed to the next stage in call handling by the processing module.

20. (Original) The hands free system according to claim 15, wherein the processing module is structured for at least one of: to mute the microphone, to connect the microphone to the voice input processor of the mobile terminal when a call is connected, to connect the earpiece amplifier output of the mobile terminal to the amplifier input of the vehicle sound system when a call is connected, to connect the preamplifier output of the stereo to the audio input of the stereo when a call is not connected or being setup, to connect the preamplifier output of the hands free mobile system to the processing module of the hands free mobile system when the call is being setup, to store telephone numbers and associate them with spoken tokens, and to prompt a user to provide phone numbers to dial.
21. (Original) The hands free system according to claim 15, wherein the processing module further comprises a voice recognition module for at least converting spoken numbers into digits, and spoken words into tokens associated with a memory location in a memory in the processing module.
22. (Original) The hands free system according to claim 15, wherein the hands free system further comprises a PC serial port connector for interfacing the processing module to a personal computer.
23. (Original) The hands free system according to claim 22, wherein the personal computer has a phone directory, wherein the processing module has a phone directory, and wherein the phone directory in the processing module is synchronizable with the phone directory in the personal computer via the PC serial port connector.

24. (Original) The hands free system according to claim 22, wherein the personal computer has a synchronization program, wherein the processing module has a synchronization program, and wherein the synchronization program in the processing module is updateable with the synchronization program in the personal computer via the PC serial port connector.
25. (Original) The hands free system according to claim 1, wherein the processing module is structured to send digits to be dialed to the mobile terminal via the cable.
26. (Currently Amended) A method, comprising the steps of:
- (a) initially placing thea hands free system in a vehicle in an idle state;
 - (b) determining if thea predetermined switch has been toggled;
 - (c) returning to step (a) if the switch has not been toggled, and muting thean amplifier and turning on thea microphone if the switch has been toggled;
 - (d) collecting digits using voice recognition or determining the stored numbers to be dialed based on a voice token;
 - (e) determining if the switch has been toggled;
 - (f) returning to step (d) if the switch has not been toggled, and playing sounds for the numbers to be dialed via the amplifier and displaying the numbers on thea display;
 - (g) determining if the switch has been toggled;
 - (h) starting, if the switch has not been toggled, a timer and when a predetermined time has expired returning to the idle state, and until then returning to step (g);
 - (i) if the switch has been toggled, sending dialed numbers to thea wireless mobile terminal that is user removable from the vehicle, connecting thean earpiece amplifier output of the mobile terminal to the amplifier of the vehicle sound system, connecting the microphone preamplifier output of the hand free mobile system to a voice input processor of the mobile terminal;

- (j) dialing the number at the mobile terminal;
- (k) connecting the call;
- (l) maintaining call connection;
- (m) determining if the switch has been toggled;
- (n) returning to step (l) if the switch has not been toggled, and returning to step (a) if the switch has been toggled;

wherein for providing hands free operation of a mobile terminal in a vehicle having a steering wheel, the hands free system has: a processing module coupled to an integrated hands free mobile system module, the integrated hands free mobile system module detachably coupled to a mobile terminal; a microphone mounted substantially in a center area of the steering wheel of the vehicle, the microphone operatively connected to the processing module; a switch located in a predetermined area of the steering wheel, the switch operatively connected to the processing unit; a display operatively connected to the processing module for displaying information relative to the connected mobile terminal; and a vehicle sound system operatively connected to the processing module.

27. (Currently Amended) A method, comprising the steps of:

(a) initially placing thea hands free system in a vehicle in an idle state;

(b) determining if there is an incoming call, returning to step (a) if there is no incoming call, and proceeding to the next step if there is an incoming call;

(c) connecting thea microphone to thea mobile terminal, that is user removable from the vehicle, voice input processor, announcing the calling party information on thea stereo amplifier, and displaying it on thea screen; and connecting thea mobile terminal ear piece output to the stereo amplifier;

(d) determining if thea predetermined switch has been toggled;

(e) starting, if the switch has not been toggled, a timer, and if the switch has been toggled proceeding to step (g);

(f) when a predetermined time has expired (~~step 406~~) returning to the idle state, and until then returning to step (d);

(g) ~~carrying out the conversation, connecting the call is connected~~; and

(h) determining if the switch has been toggled, and if the switch has not been toggled returning to step (g), and if the switch has been toggled returning to the idle state;

~~wherein for providing hands free operation of a mobile terminal in a vehicle having a steering wheel, the hands free system has: a processing module coupled to an integrated hands free mobile system module, the integrated hands free mobile system module detachably coupled to a mobile terminal; a microphone mounted substantially in a center area of the steering wheel of the vehicle, the microphone operatively connected to the processing module; a switch located in a predetermined area of the steering wheel, the switch operatively connected to the processing unit; a display operatively connected to the processing module for displaying information relative to the connected mobile terminal; and a vehicle sound system operatively connected to the processing module.~~